
The Multilateral Initiative on Malaria (MIM) Newsletter

Issue 1

June 1998

'Wellcome' to the MIM Newsletter

The MIM newsletter will be produced every two months and will provide up-to-date information on all the latest developments at MIM. The newsletter is intended to serve as a forum where all participants and other interested parties can share their news, views and information.

The Wellcome Trust, as coordinator of MIM for 1998, depends on you to provide us with current information on all MIM activities, so that we can effectively coordinate and disseminate this information. MIM newsletter no. 2 will be published in September 1998. We hope to hear from you all, but please note that the deadline for submission of information will be mid- August.

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Additional information about MIM can be found on our Malaria Foundation International webpage at www.malaria.org/MIM.htm. The Malaria Foundation has been nominated to handle public relations activities and communication issues relating to MIM. The newsletter and webpage are designed to improve communication and advocacy for both MIM and other malaria issues.

The Wellcome Trust

In late 1997, The Wellcome Trust was nominated to act as coordinator of MIM for one year. The early part of the year was spent on internal re-organisation at the Trust, followed by the recruitment of 2 additional staff members in May, so that there are now 3 full time members of staff working on MIM. In June, the Governors of the Trust agreed to provide a budget of US\$320,000 for administration and organisation of MIM.

Malaria: Latest Developments

The Roll Back Malaria Initiative (RBM) was announced in May 1998 by WHO. The African Malaria Control

Initiative (World Bank/WHO/AFRO) specifically targets malaria control in Africa. G8 leaders pledged support for the international malaria initiatives, with the UK pledging £60 million for RBM. These initiatives have established targets for reducing malaria morbidity and mortality, and should raise the profile of malaria and facilitate a strongly coordinated response.

Where does MIM fit in?

As you are no doubt aware, the priority focus of MIM is to promote and facilitate communication and collaboration in the research community. A major objective of MIM, however, is to ensure that practical health benefits arise from research. To achieve this, close liaison with the control community and pharmaceutical industry is critical. MIM is fully committed to integrating its activities with the major new malaria control initiatives (African Malaria Control Initiative, Roll Back Malaria), to ensure that research findings are actively fed into these programmes and that research necessary to underpin policy decisions is carried out.

Antimalarial Drug Resistance

The problem of antimalarial drug resistance in Africa has been identified as a priority for concerted action under MIM. A MIM meeting was held in Geneva, 14-15th May, to discuss opportunities for greater integration of research, policy and implementation activities relating to antimalarial drug usage, and to develop clear plans for concerted action to address gaps not encompassed by current programmes. The meeting also provided a forum to examine options for enhancing the synergy of research and development activities in a wider sense, another specific priority to which MIM has made a commitment. The meeting was attended by individuals from 20 organisations encompassing the full spectrum of activities: malaria control programmes; policy formulation, clinical and epidemiological research; basic laboratory research. Participants included those with administrative responsibility for the activities of their respective agencies, together with key individuals with scientific and technical expertise.

A range of critical research questions underpinning policy decisions on drug usage, that have not been adequately addressed, but are essential to the advancement of antimalarial drug policy were identified. Constraints on policy implementation include a general inadequacy of resources, in particular, a lack of trained personnel,

especially in health economics, sociology and demography, and insufficient activity to address essential operational research questions.

Participants at the meeting agreed immediate actions to be taken to address key areas:

1. Antimalarial drug combinations

The use of antimalarial drug combinations, particularly artemisinin derivatives with other antimalarials, may be of benefit in delaying the emergence of drug resistant parasites and, in areas of low transmission intensity, reducing transmission and incidence of malaria.

TDR/WHO and The Wellcome Trust made a commitment to support well designed safety and efficacy trials on combinations of artemisinin derivatives with other antimalarial drugs. These studies are essential preliminary steps to establish the effectivity and acceptability of using particular drug combinations, prior to considering their deployment. Since the meeting, The Wellcome Trust has agreed to support studies into antimalarial drug combinations at the Trust's overseas research programmes whilst TDR will support studies at other sites.

2. Antimalarial drug resistance surveillance and database development

Data on malaria surveillance are available in a variety of formats and at different locations, but much of this data is not readily accessible or in a convenient form for policy makers. Recognising the critical need for appropriate up-to-date and accurate surveillance information on drug resistance and clinical malaria as a basis for policy decisions, it was agreed that great benefits would be gained, from drawing together existing sources of data into a single database. There is a requirement for a multi-level database for African countries, which is readily accessible and relevant to Ministries of Health. CDC, is collaborating with WHO and others, to develop a database system to facilitate country-level entry and analysis of data.

It was agreed that continual efforts be made to focus discussions of approaches to developing an appropriate set of databases for monitoring drug resistance in Africa. This could be done through a meeting and/or email networking of the participating agencies and the major sites collecting data that might be incorporated into a database. CDC and other interested partners might provide support and co-ordination for such discussions.

3. Research questions underpinning policy decisions and implementation of policies

A number of key areas were identified where the research community needs to reach a consensus in order for consistent and effective policies for rational antimalarial drug usage to be developed, including:

- Methodologies for malaria surveillance, including sampling strategies

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- The aims of chemotherapy in the community at both the individual and population levels
- Criteria for switching drug treatments, including the relevance of different resistance indicators to policy decisions and the level of resistance that is 'unacceptable'
- Factors determining the spread of drug resistance: complexity and intensity of drug pressure, drug quality, treatment regimens and compliance, disease transmission intensity
- Measurement of the impact of the timing and nature of drug policy decisions on morbidity and mortality
- The impact of research on policies and the efficiency of the mechanisms for translating scientific findings into policy

Important research questions concerning implementation of drug usage policies include:

- Studies of household treatment of malaria
- Optimising packaging and distribution of drugs
- Monitoring drug quality.

Some research activity is ongoing in a number of these areas, but a more co-ordinated effort will expedite progress. Participants agreed that technical workshops should be convened, bringing together individuals with the expertise to address specific research areas. Meetings already being organised by CDC address some of these, while TDR and The Wellcome Trust expressed an interest in pursuing others, either in conjunction with the CDC meetings or separately.

4. Promotion of dialogue between research and implementation communities

The critical need to establish mechanisms to ensure the relevance of research agendas to policy decisions was repeatedly emphasised, together with the need to encourage bi-directional flow of data and information between Ministries of Health and researchers. Participants recognised that the planned MIM Pan-African Malaria Conference will provide an excellent forum to bring together researchers and representatives of Ministries of Health to raise awareness of each others activities and to encourage synergistic activities. This objective should be taken fully into consideration in developing the plans for the meeting.

A full report of the Geneva meeting will be available on the MIM webpage.

Communication & Advocacy

The Malaria Foundation International (MFI) has been nominated to handle MIM public relations and communication issues (don't forget to check out the webpage). MFI has also been involved in generating publicity for broader malaria issues; UK DFID has provided a grant for malaria publicity and advocacy activities through the MFI.

Improved electronic communications in Africa. National Institutes of Health (NIH)/US National Libraries of Medicine (NLM) are developing strategic plans to improve access of African scientists to electronic communications facilities and the Internet. The Malaria Research and Training Centre, Mali, was chosen as the pilot site for testing the NLM communications plan. Following a year of consultative visits, planning and other activities, the site was connected last month. The system consists of a local area network enabling access by research, library and administrative users. On-site training will be carried out in June. Connection of other sites in Africa is now being considered.

A meeting of the Communications Working Group was held in the USA in January 1998, attended by over 30 participants from 12 countries, to discuss strategies for establishing connectivity in Africa. The next meeting will be held in Africa, but date and venue are not yet available. Other communications issues relevant to MIM include:

- **Malaria Research Network (NIH)** an interactive electronic database, designed to open communication and networking in malaria.
- **Scientists for Health and Research for Development (SHARED)** EC sponsored, interactive database of research relevant to diseases of developing countries.

Capacity building in Africa: training & infrastructure

MIM Task Force for Malaria Research Capability Strengthening in Africa (donors include NIH/World Bank/TDR/WHO/AFRO, coordinated by TDR) This Task Force was formed in direct response to priorities identified at Dakar. The Task Force's objective is to develop and strengthen core African research groups, promote technology transfer and local training, through research activities involving partnerships between African and non-African groups. At the first meeting of the task-force in February 1998, 15 proposals, with a budget of US\$2.5 million, were recommended for funding. These encompass several aspects of malaria, including: clinical and molecular basis of drug resistance, chemoprophylaxis in pregnancy, drug policy, vector biology, epidemiology of immune response, epidemiology of parasite diversity, and home-based malaria management. Additional support was recommended for 12 proposals, and a further call for proposals will be made late in 1998.

Inventory of Current Infrastructure and Malaria Research Capacity in Africa This inventory is being prepared by the Wellcome Trust/PRISM and represents a first step towards the identification of requirements for further development of human and infrastructure resources and training needs in Africa. Preliminary analysis has already begun, and some of the results will be presented in the next newsletter. Watch this space!

Other capacity building issues include:

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- **Training Program for Developing Country Scientists and Health Professionals in Information and Communication Technology** (Fogarty Center, NIH, NLM). This 1999 program will provide opportunities to advance medical research, including malaria, through training in informatics and related disciplines. In anticipation of the program, supplemental awards to NIH grants will be made in 1998.
- **Human Immune Resistance to Malaria in Endemic Areas** NIAID seek to expand, through clinical studies, our understanding of immunity to *Plasmodium falciparum*/P. vivax in humans.
- **Malaria Research and Reference Reagent Repository** (NIAID) A request for proposals was issued and award of the 7 year repository contract is expected before the end of 1998. The full repository will improve access to characterised research materials (including *Plasmodium* parasites and vector reagents) for malaria investigators worldwide.
- **Wellcome Trust Training Fellowships for researchers from developing countries** Approved June 1998. These fellowships have been established to provide an opportunity for local, regional or international research training for junior postdoctoral basic scientists or medical graduates who are nationals of developing countries.
- **Computer Assisted Learning** (Tropical Medicine Resource, Wellcome Trust) CD-ROM based interactive tutorial on malaria, part of the Topics in International Health series, launched in April 1998.
- **Network for Study of Severe Malaria in African Children** (NIAID supported) - a collaborative network of clinical centres for the study of severe and complicated malaria in African children, capable of conducting multi-centre clinical trials and validating prognostic features identified in a single site.
- **Economics of Malaria.** The World Bank has commissioned a study on the economics of malaria, including cost-effectiveness calculations for the main tools for malaria treatment and control, and analysis of the costs and benefits of alternate types and levels of investment in malaria control.

Annual MIM Pan African Malaria Conference (PAMC)

This meeting will promote discussion and interaction between scientists and public health workers across Africa. The MIM PAMC will extend the existing biennial Southern African Malaria Conference to create an all Africa conference. The last Southern African Malaria Conference, held in May 1997 in Mozambique, was initiated and organised from within Africa, and attracted over 200 delegates from 16 Southern and Eastern African countries. The meeting's objective of bringing together malaria health personnel and research scientists coincides with the MIM priority of promoting integration of the research and

development communities. The MIM PAMC will include African delegates from both public health and research, together with a number of key malaria scientists from outside Africa. To maintain regional cohesion, the meeting may incorporate parallel sessions which will focus on regional malaria control issues. Joint sessions will be organised to address critical, pan-African issues such as antimalarial drug resistance and malaria economics. The meeting will also provide an opportunity to track the progress of MIM initiatives. The Conference is provisionally being planned for April/May 1999. In view of the location of the previous MIM meeting in West Africa, it is proposed that the 1999 Conference will be held at a venue in Southern or Eastern Africa. The steering committee is currently being established.

Drug & Vaccine Development

Drug development.

A proposed plan for a public-private alliance for development of antimalarial drugs (with the goals of producing one registered product every five years and becoming financially self-sustaining in the medium term) was not supported by industrial partners in November 1997. Discussions on an alternative format for the initiative are continuing.

In a more positive light, a meeting between UK Government and pharmaceutical company executives on 14th May 1998 led to a statement that the "companies are committed to working in partnership with government, WHO and others to find ways of encouraging, and overcoming obstacles to, the development of new medicines, as well as promoting the use of preventive public health measures".

WHO/TDR has reorganised its product Research and Development functions to facilitate development and evaluation of new drugs and vaccines for malaria and other diseases. The six disease-specific drug and vaccine discovery and development programmes will be merged into two programmes: Drug Discovery Research and Vaccine Discovery Research.

Vaccine development

- Clinical Research and Trial Preparation Sites in Endemic Areas (NIAID). This 1998 initiative will establish a network of field sites in malaria endemic regions to provide fundamental information on transmission and pathogenesis, characterise parasite and patient populations in preparation for future clinical trials, and provide training to local scientists in research and clinical trial methodology.
- European Malaria Vaccine Research and Development Network (EC supported) will provide a framework for potential malaria vaccine candidates to be produced and taken through early trials.
- The Primate Reference and Research Parasitology Consortium (EC supported). Vaccine-oriented fundamental studies.

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Genome sequencing of malarial parasites

- *Plasmodium falciparum* Genome Sequencing Project (Burroughs Wellcome Fund, NIAID, Wellcome Trust, USDoD) a consortium approach and network for sharing information and resources, to sequence the entire genome of *P. falciparum*.
- Fifth Malaria Genome Sequencing Meeting, Hinxton, UK. The agenda has been expanded to include consideration of the mechanisms required to optimally exploit sequence information for identification of novel drugs and vaccines.

And Finally

We look forward to hearing from you by the middle of August. In particular, we expect to hear from all working groups for their current status reports! We hope that all the information contained within these pages is up to date and accurate, but would welcome any updates or corrections.